

U.S. Application No. 10/729,467

-2-

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A bituminous water vapor retarder membrane having a multi-layer core comprising an aluminum sheet laminated between a pair of thermoplastic sheets, said core being laminated to at least one fabric sheet impregnated with asphalt wherein the membrane is used underground.

2. (Original) The membrane of claim 1 wherein the thermoplastic sheets are polyester.

3. (Original) The membrane of claim 1 wherein the aluminum sheet and the thermoplastic sheets are laminated together with a low density polyethylene to form a core.

4. (Original) The membrane of claim 1 wherein the said core is laminated between a pair of fabrics at least one of which is impregnated with asphalt.

5. (Original) The membrane of claim 4 wherein one of the fabrics is asphalt saturated felt.

6. (Original) The membrane of claim 4 wherein the other fabric of the pair of fabrics is a fiberglass scrim.

7. (Original) The membrane of claim 6 wherein the fiberglass scrim is impregnated with asphalt.

8. (Original) The membrane of claim 1 wherein a coating of asphalt is used to adhesively secure said core to said one fabric.

9. (Original) The membrane of claim 2 wherein said polyester sheets are a polyethylene terephthalate.

10. (Original) The membrane of claim 8 wherein each outer surface of the core is treated with an adhesion promoter and is adhesively secured to said fabric by asphalt.

11. (Original) A membrane of claim 2 wherein said polyester sheets are treated with an adhesion promoter.

12. (Original) The membrane of claim 10 wherein the adhesion promoter comprises a coating selected from the group of an acrylic coating, cross linked copolymers of methacrylic acid ester and glycidyl acrylate, methacrylate, and a copolymer of acrylonitrile and styrene

13. (Original) The membrane of claim 10 wherein the adhesion promoter is a physical plasma or corona surface treatment.

U.S. Application No. 10/729,467

-3-

14. (Cancelled).

15. (Original) In a multi-layer vapor retarder having a pair of fabric sheets at least one of which is impregnated with asphalt, a core sandwiched between and adhesively secured to said fabric sheets, said core comprising an aluminum foil sheet adhesively secured between a pair of polyester sheets and secured thereto by means of a low density polyethylene adhesive, said sheets having an acrylic coating on their exterior surfaces.

16. (Cancelled).

17. (New) The combination of a concrete slab and a bituminous water vapor retarder membrane having a multi-layer core comprising an aluminum sheet laminated to at least one fabric sheet impregnated with asphalt.

18. (New) The combination of claim 17 further comprising the aluminum core comprises an aluminum sheet laminated between a pair of thermoplastic sheets.

19. (New) The membrane of claim 18 wherein the said core is laminated between a pair of fabrics at least one of which is impregnated with asphalt.

20. (New) The membrane of claim 19 wherein the other fabric of the pair of fabrics is a fiberglass scrim.

21. (New) The membrane of claim 20 wherein the fiberglass scrim is impregnated with asphalt.